

REMARKS

Claims 11 to 30 are now pending. This submission is being filed with Applicants' Request for Continued Examination. Applicants respectfully request reconsideration of the present application in view of this response.

Claims 11, 24 and 30 have been rewritten above. Underlining indicates additions and strikeouts indicate deletions. No new matter has been added.

35 U.S.C. § 102(b) - Atalla reference

With respect to paragraph four (4) of the Final Office Action, claims 11 to 13, 15, 16, 18, 19, 22, 23, 25, 27 and 29 were rejected under 35 U.S.C. § 102(b) as anticipated by Atalla et al., U.S. Patent No. 5,319,710.

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102(b), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Office Action does not meet this standard, for example, as to all of the features of the claims. Still further, not only must each of the claim limitations be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed invention, namely the claimed subject matter of the claims, as discussed herein. (See *Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)). In particular, it is respectfully submitted that the reference relied upon would not enable a person having ordinary skill in the art to practice the subject matter of the claims as presented.

As further regards the anticipation rejections, to the extent that the Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; and see *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int'f. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic. Accordingly, it is respectfully

submitted that any anticipation rejection premised on the inherency doctrine is not sustainable absent the foregoing conditions.

The “Atalla” reference purportedly concerns combining and managing personal verification and message authentication encryptions for network transmission, and refers to providing a method and an arrangement for integrating the encryption keys associated with the personal identification number (“PIN”) and message authentication code (“MAC”) to assure that the codes are sufficiently interrelated and that alteration of one such code will adversely affect the other such code and inhibit message authentication in the network. (See col. 2, lines 10-16). The “Atalla” reference further refers to the return acknowledgment or non-acknowledgment code being securely returned from node to node in the network without the need for encryption and decryption at each node, and will still be securely available for proper validation as received at the originating node. (See col. 2, lines 16-21). The “Atalla” reference recites that this is accomplished by using one session key to encrypt the PIN along with the MAC, a random number, the message, and the sequence number which are also encrypted with the PIN such that re-encryption thereof in the transmission from location to location, or node to node over a network is greatly facilitated and validated at each node. (See col. 2, lines 21-28). The “Atalla” reference further refers to portions of the random number being selected for use as the Acknowledgment or Non-Acknowledgment return codes which can be securely returned and which can then only be used once to unambiguously validate the returned code only at the originating node in the network. (See col. 2, lines 28-33).

In contrast, claim 11 recites a method for transmitting signals between a transmitter and a receiver including: calculating data as a function of a secret key using at least one cryptographic algorithm in a calculation phase; and calculating authentication tokens for the signals as a function of the data in a communication phase so as to authenticate both the signals and a transmission sequence of the signals.

Accordingly, the “Atalla” reference does not identically disclose (as it must for anticipation) or even suggest at least the feature of calculating an authentication token as a function of the data in the communication phase to authenticate both the signals and transmission sequence of the signal, as in claim 11. In fact, the “Atalla” reference concerns using one session key to encrypt the PIN along with the MAC, a random number, the

message, and the sequence number which are also encrypted with the PIN such that re-encryption thereof in the transmission from location to location. (See col. 2, lines 10-28). The “Atalla” reference further refers to using portions of the random number being selected for use as the Acknowledgment or Non-Acknowledgment return codes which can be securely returned and which can then only be used once to unambiguously validate the returned code only at the originating node in the network. (See col. 2, lines 28-33).

In claim 11 of the present application, the calculation of an authentication token for the signals is *as a function of the data in the communication phase* so as to authenticate both the signals and the transmission sequence of the signals, as recited in the context of claim 11 and as those terms are used and defined in the context of the specification. It is believed that the Office Action reflects its own understanding of these terms without regard to their meaning as defined in the context of the specification. Accordingly, the “Atalla” reference does not identically disclose or even suggest the features of claim 11.

Even though the rejections are not agreed with in view of the foregoing, to facilitate matters, claim 11 as presented now further provides that *the signals received by the receiver from the transmitter are accepted as authentic if a transmitted authentication token that is received by the receiver matches the authentication token calculated by the receiver*, as provided for at page 3 of the specification, for example, so that claim 11 as presented is allowable.

Since claims 12, 13, 15, 16, 18, 19, 22 and 23 depend from claim 11, those claims are allowable for at least the same reasons as claim 11.

Claim 24 as presented includes features like those of claim 11 as presented, and is therefore allowable for essentially the same reasons as claim 11, as are its dependent claims 25 to 29.

Claim 30 as presented includes features like those of claim 11 as presented, and is therefore allowable for essentially the same reasons as claim 11.

Accordingly, claims 11 to 13, 15, 16, 18, 19, 22, 23, 25, 27 and 29 are allowable, as are claims 24, 26, 28 and 30.

35 U.S.C. § 103(a) - Atalla reference and "Official Notes"

With respect to paragraph six (6) of the Final Office Action, claims 14, 17, 20 and 21, and claims 24, 26, 28 and 30, were rejected under 35 U.S.C. § 103(a) as obvious over the "Atalla" reference as applied to claim 11 in view of the cited "Official Notices".

Claims 14, 17, 20, and 21 depend from claim 11, and are therefore allowable for essentially the same reasons as claim 11, since the Official Notice does not cure the critical deficiencies of the "Atalla" reference.

Claims 24 and 30 are allowable for essentially the reasons explained above as to claim 11, since claims 24 and 30 include features like those of claim 11 as explained above, and since the "Official Notices" do not cure the critical deficiencies of the "Atalla" reference. Claims 26 and 28 depend from claim 24, and are therefore allowable for the same reasons as claim 24.

As further regards the obviousness rejections and the reliance on the Official Notices, Applicants respectfully traverse the Official Notices and/or the assertions of what was "well known in the art" to the extent that they are maintained and requests that the Examiner provide specific evidence to establish those assertions and/or contentions that may be supported by such Official Notices and/or "well known in the art" assertions under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, it is respectfully requested that the Examiner provide an affidavit and/or that the Examiner provide published information concerning all such assertions. This is because the § 102 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

As further regards the foregoing, judicial or official notice that is based on subjective and unsupported reasoning will not sustain an obviousness rejection. In the M.P.E.P. cited case of In re Ahlert, 165 U.S.P.Q. 418, 420-21 (C.C.P.A. 1970)), the Court made plain that:

Assertions of technical facts in areas of esoteric technology must always be supported by citation to some reference work recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference. **Allegations concerning specific "knowledge" of the prior art, which might be peculiar to a**

particular art should also be supported and the appellant similarly given the opportunity to make a challenge.

In re Ahlert, 165 U.S.P.Q. at 420-21 (citations omitted).

Otherwise, if the Office cannot provide either references or an affidavit to support the assertions and/or contentions now made, including those made under Official Notice, it is respectfully requested that the rejections of the claims under 35 U.S.C. § 103 be withdrawn for this reason alone.

As further regard the obviousness rejections, to reject a claim as obvious under 35 U.S.C. § 103, the prior art must disclose or suggest each claim element and it must also provide a motivation or suggestion for combining the elements in the manner contemplated by the claim. (See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990)). Thus, the “problem confronted by the inventor must be considered in determining whether it would have been obvious to combine the references in order to solve the problem”, Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 679 (Fed. Cir. 1998). The prior art simply does not address the problem of “detecting a change in the sequence of transmitted data”, which is met by the subject matter of any of the rejected claims as explained at pages 2 and 3 of the Specification of the present application.

The cases of In re Fine, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988), and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), also make plain that the Final Office Action’s assertions that it would have been obvious to modify the reference relied upon does not properly support a § 103 rejection. It is respectfully suggested that those cases make plain that the Final Office Action reflects a subjective “obvious to try” standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the reference and the “Official Notices” relied upon. In particular, the Court in the case of In re Fine stated that:

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . **One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.**

In re Fine, 5 U.S.P.Q.2d at 1600 (citations omitted; emphasis added).

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” -- which is not even the case here, there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed”, stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. *With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed.* In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper *prima facie* case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

(See In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Federal Circuit 2000) (italics added)). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference and the “Official Notices” relied upon. As referred to above, any review of the reference and the Official Notices, whether taken alone or combined, makes plain that they simply do not describe or provide the motivation to result in the features discussed above of the rejected claims.

More recent still, in the case of *In re Lee*, 61 U.S.P.Q.2d 1430, 1433-35 (Fed. Cir. 2002), the Court reversed the Board of Appeals for relying on conclusory statements, stating the following:

With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that “the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software” and that “another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial” do not adequately

address the issue of motivation to combine. This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to “[use] that which the inventor taught against its teacher.” Thus the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion.

....

In its decision on Lee's patent application, the Board rejected the need for “any specific hint or suggestion in a particular reference” to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action.

[The] “common knowledge and common sense” on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the Administrative Procedure Act. Conclusory statements such as those here provided do not fulfill the agency's obligation.

[The] Board's findings must extend to all material facts and must be documented on the record, lest the “haze of so-called expertise” acquire insulation from accountability. “Common knowledge and common sense,” even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority.

Thus, the proper evidence of obviousness must show why there is a suggestion to combine the reference and the “Official Notices” so as to provide the subject matter of the claims and its benefits.

As further regards all of the obviousness rejections of the claims, it is respectfully submitted that not even a *prima facie* case has been made in the present case for obviousness, since the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences

between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard -- the evidence for which does not include “broad conclusory statements standing alone”. (See In re Kotzab, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing In re Dembiczak, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such particularized showings by the Office Actions to date.

The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing In re Warner, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper prima facie unpatentability case -- which has not been met in the present case. (See In re Oetiker, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

Accordingly, all the claims are allowable for all of the above reasons.

It is therefore respectfully submitted that claims 11 to 30 are allowable.

Appl. Ser. No. 09/269,830
Att. Docket No. 02345/62

CONCLUSION

In view of the foregoing, it is believed that the rejections have been obviated, and that claims 11 to 30 are allowable. It is therefore respectfully requested that the rejections be withdrawn, and that the present application issue as early as possible.

Respectfully submitted,

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